

REMARKS

This Amendment is responsive to the Office Action mailed July 26, 2005 (hereinafter "Office Action"). Applicants appreciate the indication that Claims 16-19 recite patentable subject matter. Applicants traverse the rejections of Claims 1-15 for at least the reasons discussed below.

The Restriction Requirement

Applicants note the Office Action includes a *verbatim* restatement of the Restriction Requirement mailed April 5, 2005. Applicants note that Applicants elected Group 1, Claims 1-19, with traverse, in Applicants' Response to Restriction Requirement filed May 2, 2005. Applicants' grounds for traversal are that the independent claims share common technical features. The Office Action provides no acknowledgment of Applicants' traversal, no rebuttal of the arguments supporting traversal provided in Applicants' Response, and no indication of finality or non-finality of the Restriction Requirement. Accordingly, Applicants maintain the traversal of the Restriction Requirement for the reasons provided in the Response to Restriction Requirement filed May 2, 2005. Applicants further note that the Office Action states a deadline for responding to the Restriction Requirement that contradicts the Office Action Summary, and assume this paragraph was erroneously included in the Office Action.

Claims 1-19 are patentable

Independent Claim 1 stands rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 6,590,541 to Schultze (hereinafter "Schultze"). Applicants respectfully traverse this rejection, as Schultze fails to disclose or suggest several of the recitations of Claim 1.

The Office Action cites Figs. 1-5 of Schultze as showing "a conductor loop overlying the ground plane" and "a monopole extending off the ground plane." Office Action, p. 3. It is unclear as to which features in Figs. 1-5 allegedly correspond to the "conductor loop" and "monopole" recited in Claim 1, as the Office Action fails to specifically identify any structures other than the ground plane 2 and the feed point 3. See Office Action, pp. 3 and 4. Based on the statement that "a conductor loop (half loop acts as a folded monopole antenna)

overlying the ground plane" (Office Action, p. 3), it appears possible that the Office Action is asserting that the "half loop" corresponds to both the "conductor loop" and "monopole" recited in Claim 1. However, such an interpretation would be inconsistent with other recitations of Claim 1.

In particular, Claim 1 recites that "the monopole and the conductor loop are configured to be coupled to a *common* feedpoint." A "common" feedpoint clearly indicates that *multiple* components are coupled to the feedpoint because, otherwise, the term "common" would be meaningless. Figs. 1-4 of Schultze show curved conductors 1, which, in the embodiment of FIG. 4, takes the form of a conductor loop, that is oriented with respect to a ground plane 2 and fed at a feedpoint 3. As noted in Schultze, such structures act like a folded monopole. However, none of the embodiments shown in Schultze includes a conductor loop *and* a monopole that are "configured to be coupled to a common feedpoint." Moreover, the structures shown in Figs. 1-5 clearly do not extend off the ground plane, where extending off the ground plane refers to having at least a portion that does not overlie the ground plane, as shown, for example, in Figs. 1, 2, 4, 7, 9, 11 and 17 of the present application. Accordingly, Applicants submit that Schultze does not disclose or suggest several of the recitations of independent Claim 1 and, for at least these reasons, Applicants submit that independent Claim 1 is patentable. Applicants submit that dependent Claims 2-19 are patentable at least by virtue of the patentability of independent Claim 1 from which they depend.

Applicants request withdrawal of the rejections of dependent Claims 2-15 for additional reasons. In particular, in the rejections of Claims 2, 3, 5-7 and 9, the Office Action merely makes vague references to Schultze without any specific indication as to which features illustrated in the figures of Schultze correspond to the specific recitations of these claims. In particular, the rejections of Claim 2, 3 and 5 merely repeat the claim language and state "See figure 1," while the rejections of Claims 6, 7 and 9 merely repeat the claim language and only generally refer to Figs. 1-5. The rejection of Claim 12 refers to no particular passage or figure in Schultze. Accordingly, Applicants submit that the rejections of these claims are improper and should be withdrawn. Should these rejections be

maintained, Applicants respectfully request specific indication as to where the elements of these claims are allegedly shown in these figures.

The rejections of Claims 4, 8, 10, 11 and 13-15 should also be withdrawn. With respect to the rejections of Claim 4, 10 and 11, which stand rejected as obvious over Schultze and U.S. Patent Publication No. 2003/0117325 to Jo et al. (hereinafter "Jo"), the Office Action states that it would have been obvious "to employ the conductor loop is rectangle shape and feed point comprise a pad on the printed circuit such as that suggested by Jo in the antenna system of Schultz to provide multiple frequency bands for helical antenna, such the antenna provides multiple frequencies in a relatively small voltage for use with handset device." Office Action, p. 5. Respectfully, it does not appear possible to implement the antenna configurations shown in Figs. 1-5 of Schultze as layers on a planar surface, such as the printed circuit boards shown in Jo, as the curved antenna elements shown in Figs. 1-5 of Schultze **are not planar**. For at least these additional reasons, Applicants submit that the rejections of Claims 4, 10 and 11 are erroneous and should be withdrawn.

In rejecting Claims 8 and 13, the Office Action concedes that Schultze does not disclose the claimed VSWR characteristics, but asserts that Jo discloses these characteristics. Office Action, p. 5. Applicants respectfully point out that the cited portion of Jo does not disclose VSWR values over a range of about 1.5 GHz to about 2.5 GHz. Rather, Jo merely states VSWR values at frequency bands of 100 MHz and 200 MHz centered at 2.45 GHz and 5.25 GHz, respectively. In addition, the Office Action cites no evidence from the prior art that the proposed **combination** of Schultze and Jo would have the recited characteristics. For at least these additional reasons, the rejections of Claims 8 and 13 are erroneous and should be withdrawn.

In rejecting Claims 14 and 15, the Office Action concedes that Schultze and Jo do not disclose that the monopole is retractable, but asserts that it would have been "an obvious matter of design choice to employ Schultze and Jo in any desired interest area in order to maximize the usage of the invention." Office Action, p. 6. The Office Action provides no indications as to where the prior art teaches or suggests that the proposed modification would "maximize usage." In addition, the Office Action appears to be saying that a combination of Schultze and Jo could be deployed in any location. This has nothing to do with the claims,

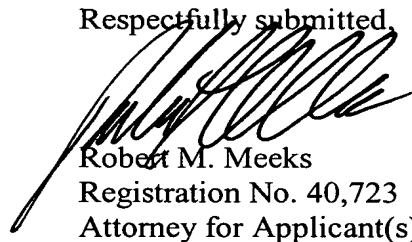
In re: Hwang et al.
Serial No.: 10/691,150
Filed: October 22, 2003
Page 12

which recite that the *monopole* is retractable. For at least these additional reasons, Applicants submit that the rejections of Claims 14 and 15 are erroneous and should be withdrawn.

Conclusion

Applicants respectfully submit that this application is in condition for substantive examination of Claims 1-19, which action is respectfully requested. Any questions that the Examiner may have regarding this correspondence can be directed to the undersigned.

Respectfully submitted,

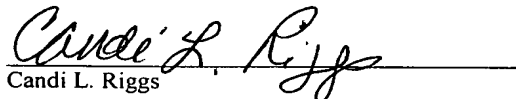


Robert M. Meeks
Registration No. 40,723
Attorney for Applicant(s)

USPTO Customer No. 20792
Myers Bigel Sibley & Sajovec
Post Office Box 37428
Raleigh, North Carolina 27627
Telephone: 919/854-1400
Facsimile: 919/854-1401

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on October 25, 2005.



Candi L. Riggs